Journal of Basic Education Research
Vol. 6, No. 3, September 2025, pp. 420~431
ISSN: 2716-3725, DOI: 10.37251/jber.v6i3.2074

Academic Buoyancy and Peer Support as Predictors of Student Engagement in Learners within Compulsory Education

Devia Rahma Hamimatul Fadila[1], Kartika Nur Fathiyah[2]
[1, 2] Department of Psyvhology, Yogyakarta State University, Yogyakarta, Indonesia

Article Info

Article history:

Received Jul 14, 2025
Revised Aug 17, 2025
Accepted Aug 20, 2025
OnlineFirst Sep 15, 2025

Keywords:

Academic Buoyancy
Adolescents
Peer Support
Student
Student Engagement

ABSTRACT

Purpose of the study: This study aims to examine academic buoyancy and peer support as predictors of student engagement in high school students

Methodology: This study is a quantitative study involving 324 high school students in Madiun who were selected by random sampling. The research instrument in this study used three scales: the student engagement scale, the academic buoyancy scale, and the peer support scale. Validity testing used content validity using the Gregory formula, while reliability using Chronbach Alpha with a value of 0.863 for the student engagement scale, 0.629 for the academic buoyancy scale, and 0.865 for the peer support scale. The data were analyzed using multiple linear regression techniques.

Main Findings: The results of the study showed that academic buoyancy and peer support simultaneously had a significant influence on student engagement, which means that academic buoyancy and peer support together were predictors of student engagement in high school students

Novelty/Originality of this study: This study reveals the unique role of academic buoyancy and peer support as predictors of high school student engagement, presenting a new perspective that combines academic resilience and social relationships in predicting learning engagement holistically.

This is an open access article under the CC BY license

Corresponding Author:
Devia Rahma Hamimatul Fadila,
Psychology Study Program, Faculty of Psychology, Yogyakarta State University,
Jl. Colombo No.1, Karang Malang, Caturtunggal, Kec. Depok, Kabupaten Sleman, Yogyakarta, Indonesia.
Email: deviarahma.2022@student.uny.ac.id

1. INTRODUCTION

Student engagement has attracted attention and is beginning to be widely used by students, teachers, parents, researchers, and experts in the field of education [1]. The use of this term has spread both in simple language and scientific discourse since its appearance in academic literature due to its potential to influence various aspects in the field of education [2]. Research shows the influence of student engagement in improving low academic achievement, student motivation, academic performance, life satisfaction, and student well-being.as well asplays an important role in various educational achievements [1]. In his study [3] he also explained that high engagement in schools can make learning activities more effective. In addition, students who are more engage in school are less likely to drop out of school [1].

Student engagement was initially only understood as a behavioral aspect which was simply defined as student participation in various activities that led to teaching and learning activities [4]. Over time, understanding of student engagement has continued to evolve. Engagement has come to be understood as a condition in which a person exhibits behaviors that involve engaging in learning activities, accompanied by the emergence of positive emotions [5]. Various scientific practitioners promote student engagement as an educational policy designed to reduce boredom and passive student behavior and reduce dropout rates [6]. The active engagement of students in

various school activities is then understood in terms of engagement in behavioral, emotional, and cognitive forms [1].

Previous literature shows that there are several important indicators that characterize student engagement. These indicators can be demonstrated in the form of compliance with rules and attendance, effort to learn, participation in class activities, interaction, completion of cognitive tasks, learning satisfaction, sense of belonging, and enthusiasm for learning [7], [8]. Verdina and Pramono [9] complementing with the statement that students who are engaged are seen from the students' activeness in thinking, speaking, and interacting with learning materials, fellow students or teachers, thus creating a dynamic and collaborative learning environment to support their understanding and development. On the other hand, the condition of students who are not engaged can be indicated by how students easily feel bored, unmotivated, and not involved in both the academic and social aspects of school life [6].

Furlong and Christenson [10] explains that student engagement is a construct relevant to all students. This demonstrates the understanding that students require engagement at various levels of education, both behaviorally, emotionally, and cognitively, to achieve desired educational outcomes, including at the senior high school (SMA) level. Student success at this level is related to their future success, while success in high school largely depends on their level of motivation and engagement in school [11]. This is also in line with the statement. Metger and Langley [12] about student involvement being an important part of the educational process, especially in secondary schools.

Today's students need to be fully engaged to achieve maximum academic and non-academic achievements. However, the reality on the ground in some cases shows results that contradict this ideal. This can be seen in the initial data collection from 40 respondents, students at a State Islamic Senior High School (MAN) in Madiun, which showed relatively low levels of student engagement. This condition was demonstrated by various activities that contradicted the ideal conditions. Some students still play with their phones during school hours, fall asleep during class, sleep in class, ignore teachers, and rarely contribute to discussions and other school activities. Furthermore, they still display laziness, boredom, and anxiety about assignments. Students are also still found to be truant and uninterested in participating in school activities. Some students also feel that school is not a fun place. These results indicate that students' conditions still contradict various indicators or forms of activity that reflect behavioral, emotional, and cognitive engagement.

In line with these findings in the field, various studies also show a gap between ideal conditions and actual conditions [13] states that students demonstrate inconsistent or variable forms of participation in school. This form of participation is demonstrated through a lack of student engagement and motivation in their learning experiences, particularly in subjects considered challenging [14] and the inability of students to overcome existing academic problems [15]. Previous research on high school students, student engagement showed worse conditions in emotional and cognitive engagement which was also accompanied by hyperactive, inattentive, and defiant behavior [16], [17]. Besides that, Schnitzler al. [13] in his research stated that the number of students who were not involved still showed the largest subgroup with a percentage of 37% in the context of the sample used.

The issue of student involvement is reinforced by Fredricks et al. [18] in his research, he stated that students are not engaged because they are tired, not interested, do not understand the learning material, do not like the teacher, or are distracted by other things going on in their lives. Furthermore, the decline in student engagement is also mentioned as an impact of the transition from elementary school to secondary school and changes in the system or level in schools, for example, schools with a larger scale and a more integrated education system. [11] This condition is reinforced by how the transition process from elementary school to junior high school or high school often results in changes and stress that are experienced directly and in parallel [19].

In addition to these issues, students, who are also adolescents, currently have a need for autonomy from adults and a greater focus on developing their own identity. This drive can lead to decreased emotional and behavioral engagement in school if students perceive school as controlling or irrelevant to their developing sense of identity [20]. In addition, adolescents also experience various life contexts such as school, home, and peers that may have conflicting expectations or norms regarding learning, which can disrupt the consistency of their engagement [21].

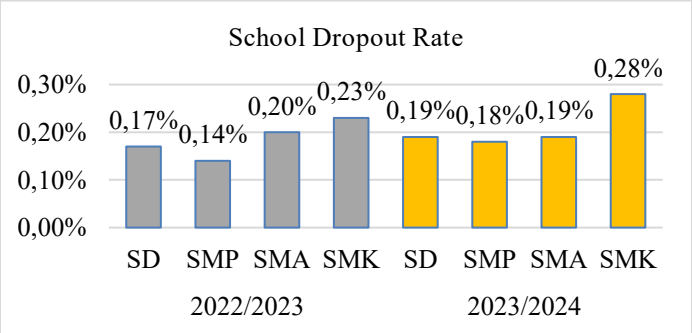

Figure 1. Percentage of School Dropout Rates for the 2022/2023 and 2023/2024 Academic Years

Regarding school dropouts, according to data from the 2024 People's Welfare Indicator report, in the 2022/2023 and 2023/2024 academic years, there were still students dropping out of school at various levels of education [22]. The school dropout rate in the 2023/2024 academic year was recorded as increasing at all levels of education, except for senior high school (SMA/K/MA). The following graph shows the dropout rate in Indonesia by educational level. The data shows that the higher a student's educational level, the higher the dropout rate in Indonesia. Senior high school (SMA/K) has the highest percentage. This data shows that there are still many dropout cases in SMA/K/MA, indicating a less than ideal situation for educational development in Indonesia.

Conditions that indicate school dropout rates occur due to various factors. In a study conducted Banaag et al., [23] at least the reasons why students drop out of school are related to family, school, and social factors. Family-related factors include early marriage, teenage pregnancy, and financial problems. School-related factors include poor academic performance, poor school administration, corporal punishment, and negative experiences associated with reduced motivation, engagement, and a sense of belonging. Social factors include peer influence, cultural norms, or racial differences. Therefore, the presence of school-related factors does not rule out the possibility that a lack of student engagement is related to dropout. This is supported by research that states that student engagement is one of the predictors of dropout intentions [24] because students who have lower engagement are also more vulnerable to making negative educational decisions such as dropping out of school [25]. Referring to the various issues raised, as seen from various studies, both field and empirical, the state of student engagement indicates the need for steps to address the existing problems, one of which is by increasing student engagement. One such step can be explored based on factors that influence student engagement. In this case, student engagement factors can be influenced by both internal and external factors.

Internal factors of student involvement can take the form of individual needs which include the need for attachment, the need for autonomy, and the need to compete [1], other factors such as academic buoyancy [26], intrinsic motivation [27], and the emotional condition of students [28].Furthermore, external factors can come from teacher support [29], [30], [31], friends of the same age [1], [32] and school climate [33], [34], [35] . Referring to these various factors, two factors that can predict student engagement are academic buoyancy and peer support. The first factor that can predict student engagement is academic buoyancy. Academic buoyancy itself can be understood as a student's personal capacity to positively overcome various challenges and academic setbacks that commonly occur in everyday school life [36], [37]. Academic buoyancy is a predictor of student engagement, related to how students have coping strategies that enable them to be more involved in school. This is evidenced by several studies that indicate the role and positive relationship of academic buoyancy to student engagement [37], [15], [38].

Research also shows that higher academic buoyancy in students leads to a better relationship with behavioral and emotional dimension engagement [15]. This is also supported by various studies which state thatStudents with higher levels of academic buoyancy tend to have higher self-efficacy and are more engaged in key aspects of education and are less susceptible to the negative effects of anxiety [37], [15] . In line with the research results that have been presented, the buoyant state in students helps them maintain motivation and persistence even when facing obstacles, reducing stress and anxiety which often damage engagement [39]. This is because buoyant students were found to be better able to manage their stress and anxiety [40]. Buoyant students also exhibit more task-oriented planning and lower avoidance behavior supported by positive emotions such as pleasure and hope [41]. Ultimately, these positive emotions encourage students to persist in problem-solving efforts and engage deeply in learning activities [42], [43]. This shows that academic buoyancy plays a role as one of the factors that can indicate the existence of student engagement.

In addition to academic buoyancy, peer support also contributes to student engagement. High school students, in this case, are entering adolescence. At this age, socialization with family begins to decrease, while socialization with peers increases [19]. Adolescents are trying to develop self-identity and establish boundaries of autonomy from their parents so that forming peer relationships becomes an important developmental task [44]. Teenagers gather with their peers in a group making them very dependent on their peers as a source of pleasure

and strong attachment [19]. At this age, students spend a lot of time with their peers while at school, so this strengthens the conditions for students to influence each other in their involvement and achievements [45]. This condition can strengthen student engagement through shared school values, educational expectations, attendance, aspirations for learning or academic beliefs and efforts [46].

In academic terms, support received from peers is related to increased engagement and learning outcomes [45]. This is supported by research showing that classmates and peer support in academic contexts are the strongest predictors of student engagement [46], [47]. Zhang et al., [32] In his research, he showed the role of support received from teachers and peers on student involvement. Positive peer relationships and academic support received have also been shown to contribute to student engagement in learning among students [26]. In addition, the peer support felt by students has also been proven to be able to build their behavioral engagement. [48]. In line with the research conducted af'Ursin et al., [49] states that students who have a tendency to be self-confident and receive a lot of support from their social environment will be more cognitively and emotionally engaged. This is also in line with research by Zariayufa et al., [50] which strengthens the opinionthat support obtained from peers has a significantly positive relationship with cognitive engagement in students.

Peer support in this academic context is associated with the view of peer support as creating a good and collaborative environment for students to improve and maintain their abilities and strengths to achieve academic goals [51]. This could be related to how The support that students receive from their peers can create feelings of comfort and appreciation which ultimately makes students more actively involved in learning activities in the classroom [32]. So in the end, peer support becomes an important factor in the mental health and engagement of students who play their role in providing assistance, encouragement, and emotional support to each other and creating relationships of mutual help and understanding in the educational environment [52]. These various understandings demonstrate the continued need for research and knowledge related to student engagement. This is supported by the fact that student engagement is an integral part of every level of education [10]. The existence of problems in the field that indicate a perceived lack of engagement, research results that are still varied, and the benefits of student engagement that are felt to be important as previously stated are also reasons why this research is still relevant to be carried out.. It also relates to how student engagement has many facets in behavioral and psychological components, and shows that engagement can develop and can be modified through policies and practices in schools [53].

Research on student engagement has been conducted previously. The role of academic buoyancy on student engagement [26], [38], [15] showed a positive relationship between both, while the role of peer support was also studied in relation to positive student engagement [48], [47]. Combining academic buoyancy, a new construct in positive psychology, and peer support as predictors of student engagement has not been widely studied. Furthermore, peer support in this study focuses on support within the academic context and environment, thus demonstrating a position closer to their conditions as students. This study will focus on high school students and is located in Indonesia, specifically in Madiun, which differentiates it from previous studies. Therefore, the differences in subjects with different environments and age ranges from previous studies, the research location, and the combination of two factors, namely academic buoyancy and peer support, differentiate this study from previous studies.Based on the background description presented, this study aims to examine how academic buoyancy and peer support, both simultaneously and individually, can predict student engagement. In this case, academic buoyancy and peer support are considered to predict the presence and grade of student engagement. Therefore, this study aims to examine academic buoyancy and peer support as predictors of student engagement in high school students.

2. RESEARCH METHOD

2.1. Research Design

This type of research is quantitative. Quantitative research is understood as research that contains all data or information in numerical form and is processed using statistical techniques [54].

2.3 Research Subjects

The population in this study was all students of MAN (Islamic State Islamic Senior High School) in Madiun Regency. Based on information obtained from the Ministry of Religious Affairs website, there are four MAN in Madiun Regency with a total of 1.278 students from grades 10-12 in the 2024/2025 academic year.The sample in this study was taken using random sampling technique with Determination of the sample size is based on the Krejcie and Morgan table., the sample required in this study must at least meet the number of 297 students.

2.3 Research Instruments

The data collection technique in this study used a questionnaire that included an introduction, respondent identity, and a scale determined by the researcher. This study used a questionnaire containing three scales: student

engagement using the School Engagement Scale (SEM) compiled by Fredrick et al., [1] scale academic buoyancy using a scale created by Martin and Marsh [36] namely the Academic Buoyancy Scale (ABS), and the peer support scale using the Perceived Friend/Peer Academic Support Scale (PFASS) compiled by Chen [45].

2.4 Research Procedures

The data collection procedure in this study was carried out by distributing printed questionnaires (paper-pencil) to students at school. The questionnaires were distributed through the Guidance Counselor (BK) as the school representative in accordance with applicable policies. The BK teachers provided a brief explanation of how to fill out the questionnaire, accompanied the students during the process, and ensured that all questions were answered properly. The questionnaire completion time was estimated to take approximately 20–30 minutes. After completion, the questionnaires were collected by the BK teachers and then submitted to the researchers for data completeness checks, coding, and further analysis, while maintaining the confidentiality of the respondents identities.

2.5 Research Analysis

The collected data were analyzed descriptively and inferentially. Descriptive data and prerequisite tests were conducted using the SPSS version 25 program to determine the number of respondents, the average, the standard deviation for each variable, the normality test, the multicollinearity test, and the heteroscedasticity test. Multiple regression analysis was conducted using SPSS version 25 to determine the influence between variables.

3. RESULTS AND DISCUSSION

After data collection, the sample demographics were stratified by age, grade, and gender. The sample demographic data for this study can be seen in Table 1.

Table 1. Sample Demographic Data

Category	Criteria	Frequency	Percentage
Age	15-16 Years	147	45.4%
	17-18 Years	174	53.7%
	19-20 Years	3	0.9%
Gender	Man	117	36.1%
	Woman	207	63.9%
Class	10	99	30.6%
	11	105	32.4%
	12	120	37%

Based on table 1, it can be seen thatThe sample of this study was high school students aged 15 to 16 years with a total of 147 students (45.4%), 17 to 18 years old with a total of 174 students (53.7%), and 19 to 20 years old with a total of 3 students (0.9%). The sample with female gender numbered 207 students (63.9%), while the remaining 117 (36.1%) were male students. The sample included grade 10 with a total of 99 students (30.6%), grade 11 with a total of 105 students (32.4%), and grade 12 with a total of 120 students (37%). It can be concluded that this study involved 324 students as a research sample. Furthermore, the normality test can be seen in Table 2.

Table 2. Results of the Kolmogorov-Smirnov Normality Test

Variables	P	Information
Academic Bouyancy, Peer support, student engagement (unstandardized residual)	0.069	Normal

Table 2 shows the results of the normality test using the Kolmogorov-Smirnov test, where each variable in this study has a p-value > 0.05 based on the unstandardized residual data. This indicates that the normality assumption can be said to be met. The unstandardized residual score shows a significance value of 0.069 > 0.05. Therefore, all three variables are normally distributed. The multicollinearity test can be seen in Table 3.

Table 3. Multicollinearity Test Results

Variables	Tolerance	VIF	Information
Academic Buoyancy	0.941	1,063	There is no multicollinearity
Peer support	0.941	1,063	There is no multicollinearity

Table 3 shows the results of the multicollinearity test, with a tolerance value of 0.941 for both the academic buoyancy and peer support variables on student engagement. A value of 0.941 is greater than 0.10, indicating no multicollinearity problem. Based on the VIF value, both the academic buoyancy and peer support variables showed a value of 1.063. A value of 1.063 is less than 10, indicating no multicollinearity problem. Therefore, it can be concluded that there is no multicollinearity in the regression model.Furthermore, the heteroscedasticity test can be seen in Figure 2.

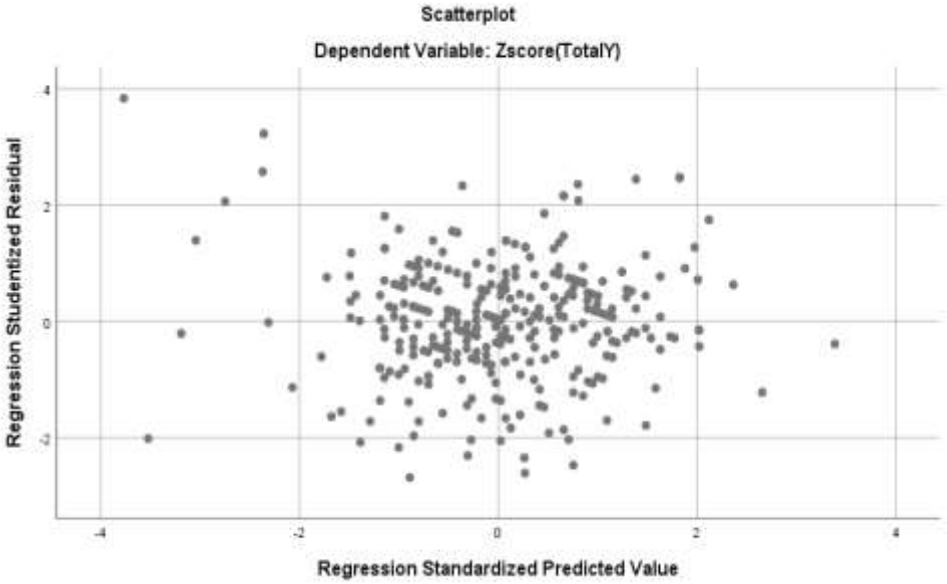

Figure 2. Scatterplot Result Image

Figure 2 shows the results of the heteroscedasticity test using a scatterplot. The diagram shows points randomly distributed without a clear pattern around the diagonal line. Based on these test results, it can be concluded that this study did not encounter heteroscedasticity and the data met the prerequisite tests in regression analysis. Furthermore, the F-test for multiple linear regression can be seen in Table 4.

Table 4. Results of Multiple Linear Regression F-Test Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	80,368	2	40,184	53,163	.000
Residual	242,632	321	.756		
Total	323,000	323			

Hypothesis testing is conducted by examining the significance value of the analysis results. The hypothesis is accepted if the significance value is less than 0.05 (sig. < 0.05). Table 19 shows a significance value of 0.000, which is less than 0.05, so the hypothesis is accepted. These results indicate that academic buoyancy and peer support simultaneously influence student engagement. Furthermore, the results of the multiple linear regression test are shown in Table 5.

Table 5. Multiple Linear Regression Test Results

Variables	Constant	X1 Coefficient	X2 Coefficient
Academic Bouyancy(X1), Peer support (X2), Student involvement (Y)	-1.136	.074	.446

Table 5 shows the calculations of the constants and beta coefficients for each variable. Based on these results, the multiple linear regression equation used in this study is as follows:

$$Y = a + b_1x_1 + b_2x_2$$

$$Y = -1{,}136 + 0{,}074\ x_1 + 0{,}446\ x_2$$

The explanation of the regression equation can be explained as follows:

1) The multiple linear regression equation has a negative value at the constant of -1.136, which states that if academic buoyancy and peer support are zero, student engagement will be negative. The constant value (a)

of -1.136 states that if the academic buoyancy and peer support variables are considered constant, then the Y value is -1.136.

2) The regression coefficient value of the academic buoyancy variable is positive, indicating that if the academic buoyancy level increases by one unit, assuming that other independent variables are constant, then the academic buoyancy will increase by 0.074.0,074
3) The regression coefficient value of the peer support variable is positive, indicating that if the level of peer support increases by one unit, assuming that other independent variables are constant, then peer support will increase by 0.446.0,446

The results of the T test used to determine whether the independent variable (X) individually influences the dependent variable (Y) can be seen in Table 6.

Table 6. Results of Multiple Linear Regression T-Test

Coefficients		
Variables	T	Sig.
Academic Buoyancy	2,793	.006
Peer support	8,946	.000

The T-test is conducted by looking at the significance value of the analysis results. If the significance value is less than 0.05 (sig. < 0.05) then the variable (X) has an influence on the variable (Y). Table 19 shows that the academic buoyancy variable has a significance value of 0.006 < 0.05, so the second hypothesis is accepted, namely the academic buoyancy variable has a positive influence on the student engagement variable. The peer support variable has a significance value of 0.000 < 0.05, so the third hypothesis is accepted, namely the peer support variable has a positive influence on the student engagement variable. Furthermore, the results of the determination coefficient test are shown in Table 7.

Table 7. Results of the Determination Coefficient Test

R	R-square (R2)	Adjusted R square
.499	.249	.244

Table 20 shows a coefficient of determination or R square of 0.249, meaning that the academic buoyancy (X1) and peer support (X2) variables simultaneously (together) influence the student engagement (Y) variable by 24.9%. The remaining 75.1% means that the student engagement variable is influenced by other variables outside this regression equation or variables not studied. To determine the effective contribution of each variable, see Table 8.

Table 8. Effective Contribution of Independent Variables

Variables	Regression Coefficient (Beta)	Correlation Coefficient (r)	SE (%)
Academic Bouyancy	.139	.248	3.45
Peer support	.446	.480	21.41

Table 8 shows the effective contribution of each independent variable to the dependent variable, obtained by multiplying the regression coefficient by the correlation coefficient and then generating it as a percentage. The academic buoyancy variable has an effective contribution of 0.0345 or 3.45%, and the peer support variable has an effective contribution of 0.2141 or 21.41%. The total effective contribution of both variables is equal to the sum of the values in the coefficient of determination or R-square, namely 0.249 or 24.9%.

Based on the results of the hypothesis testing conducted, this study answers the first hypothesis, which indicates that academic buoyancy and peer support influence student engagement. These findings indicate that academic buoyancy and peer support can predict student engagement. This condition proves that students who are academically buoyant and receive support from peers will align with their engagement conditions at school. Students with high academic buoyancy will tend to have the ability to manage challenges, thus enabling them to engage [55], [15] where as Students who receive support from peers in carrying out activities at school also align with their involvement in various academic contexts [47], [32].

Academic buoyancyand peer support serve as drivers of student engagement. The combination of academic buoyancy theory and peer support is a factor that can predict student engagement [26], [38], [47], [15] the results of this study represent a new finding related to the combination of these two variables, which will play a positive role in predicting student engagement. Therefore, these results support the hypothesis that academic buoyancy and peer support can predict student engagement, and are supported by the results of the second and third hypotheses.

The results of the second hypothesis test in this study demonstrated a significant positive effect of academic buoyancy on student engagement. This finding is supported and confirmed by previous research. Thomas

and Allen [15] which shows a positive influence between academic buoyancy and the dimensions of student involvement, namely behavioral and emotional involvement, as well as research by Yosi et al., [56] which shows an increase in cognitive engagement when students have academic buoyancy. The results of this study indicate that academic buoyancy can predict student engagement. Other findings, such as research conducted by Brighita and Rohinsa [55] shows that academic buoyancy plays a role in the emergence of student engagement and the statement of Bostwick et al., [26] about how academic buoyancy predicts several variables, one of which is engagement also supports the results of this study.

High academic buoyancy enables students to motivate themselves to achieve success, so they will be more effective in overcoming challenges in daily academic activities [56]. Students who are able to survive everyday academic difficulties and challenges will be more engaged in learning [57] while students who are unable to resolve academic difficulties or challenges will become increasingly disconnected from learning activities both emotionally and behaviorally [58]. The difficulties faced by students with high academic buoyancy do not make them feel stressed, frustrated, or give up on their education, so that at least they are able to overcome difficult conditions and the academic challenges they experience [36]. This condition makes students have sufficient interest and special attention in learning in class [36], [58]. Effective management of academic stress can benefit students in their persistence which is related to their cognitive engagement, while the enjoyment they get in school makes them emotionally involved [49]. Considering that academic stress is something that is very likely to be faced due to the many academic demands [59].

Students' ability to complete daily challenges will provide energy, perseverance, initiative, and intensity to be more focused in learning activities, have enthusiasm, and maintain their interest to always make peace with the difficulties faced when learning [58]. On the other hand, students' inability to complete these academic challenges gives rise to negative reactions such as boredom, lack of interest, sadness, worry or anxiety, and low involvement in academic activities [58]. This is in line with the conceptual understanding that states that academic buoyancy is relevant to everyday academic problems and anxieties that interfere with students' motivation and involvement in the learning process [60].

Based on this explanation, academic buoyancy can be said to be a crucial factor in building a positive relationship between students and their school and academic life, developing the ability to deal with small and large academic challenges, and returning to normal academic activities. This is because students are able to have positive perceptions and develop positive thought processes, enabling them to enjoy school and be fully present. Thus, students are able to be more active and participatory in school activities. Another predictor that can influence student engagement is peer support. The results of the third hypothesis test at this study proves that there is a significant positive influence of peer support on student engagement. This finding is supported and strengthened by research Qudsyi et al., [47] which shows that peer support can predict student engagement as seen from how the cooperative and supportive student friendship environment is important in relation to students' attitude choices to be involved in school. Martinot et al., [46] in his research, he found that peer support was the contributor to student engagement. The findings also align with other relevant research, regarding how support received from peers, both directly and indirectly, has the potential to make students more involved in school activities [45], [46], [32]. Thus, the results of this study indicate that peer support can predict student engagement.

In the academic context in which this research was conducted, it is in line with the research of Biantoro and Savitri [61] The academic support received from peers makes students more engaged. This understanding is seen in how students are able to follow school rules, wear uniforms according to regulations, feel the importance of school, have enthusiasm for school activities, and strive to master certain learning materials. The support provided by peers to students provides them with a comfortable place to interact, receive support for learning challenges at school, provide tangible assistance to support learning activities, and experience interacting and receiving information that is interconnected with each other [47]. Students who receive help, guidance, or encouragement from their peers can increase their self-efficacy and motivation to learn, which can then increase their engagement in learning activities [32].

Peer contributions to student engagement are linked to the need to be socially connected [1]. The connection between students and their peers is associated with how they select their peer groups according to some similarities such as values, attitudes, or beliefs which will then strengthen or weaken their motivation and engagement [32].Students spend a lot of time with their peers while at school, so this strengthens the conditions for students to influence each other in their engagement and achievement [45]. Rescly dan Christenson [11] also explains that peers can motivate students to engage in schoolwork and extracurricular activities. Ultimately, when students are motivated to learn, they will be more ambitious toward their goals and actively participate in learning [45].

Based on this explanation, peer support is linked to how students receive various forms of support from their peers, thus contributing to their engagement. Positive relationships and support can boost their motivation and mental well-being, which in turn fosters their commitment to engagement. This is similar to how students receive support to motivate themselves and fully participate in school activities. The various forms of support received ultimately strengthen their capacity to influence each other, one of which is student engagement in school.

Based on the hypothesis test that has been explained, the results of this study show an R2 (R square) of 24.9%. Thus, the contribution of academic buoyancy and peer support variables to student engagement 24.9%. This shows that the consistency of the student involvement variable is 24.9% can be predicted by academic buoyancy and peer support, while the remaining 75.1% is influenced by other factors. Some of these other factors can be predicted by intrinsic motivation [27], emotional condition of students [28], teacher support [29], [31], and school climate [33], [34], [35].

The influence of academic buoyancy and peer support on student engagement suggests that their contribution to student engagement tends to be small. The inclusion of diverse genders and ages in this study may be one reason. [36] In his research, he demonstrated the role of gender and age in academic buoyancy, with male and younger students significantly having higher academic buoyancy. Furthermore, younger students were also associated with higher academic enthusiasm, which could fuel their engagement [36]. Likewise, peer support is stronger and more impactful if it comes from peers of the same gender and age [62]. Female students receive more peer support in academics compared to male students, which has an impact on learning activities [62], while similar ages make students more likely to receive and respond better to peer support that is appropriate to their similar stage of social and emotional development [63].

Although academic buoyancy and peer support are important for student engagement, their influence is not the main factor in student engagement because various factors such as intrinsic motivation, student emotional state, teacher support, school climate, or other factors that encourage engagement are not met. Based on all the explanations that have been presented, it can be concluded that academic buoyancy and peer support, both together and separately, can be predictors that have an influence on student engagement in school. This study shows that the range of student engagement with high categories also goes hand in hand or can be said to be predicted by high academic buoyancy and peer support. Thus, the positive role of academic buoyancy and peer support is important for the existence of student engagement. The limitation in conducting this research lies in the distribution of questionnaires. Some schools involved in the research provided a policy to distribute questionnaires through Guidance Counselors (BK) as representatives of the school without involving researchers, so that data collection could not be monitored directly by researchers.

4. CONCLUSION

Based on the results of data analysis in the study entitled "Academic Buoyancy and Peer Support as Predictors of Student Engagement in High School Students in Madiun", it was concluded that academic buoyancy and peer support together (simultaneously) have a positive and significant influence on student engagement in high school students. This shows that academic buoyancy and peer support together can predict student engagement in high school students. Furthermore, academic buoyancy has a positive and significant influence on student engagement in high school students. This shows that academic buoyancy can predict student engagement in high school students. Finally, peer support has a positive and significant influence on student engagement in high school students. This shows that peer support can predict student engagement in high school students. Future researchers are expected to further develop the study in this study, particularly to understand each dimension of student engagement. To enrich the findings, future researchers may also consider examining additional factors that may play a role in supporting student engagement. Furthermore, future researchers could expand the research area to examine academic buoyancy, peer support, and student engagement more broadly or across different educational levels.

REFERENCES

[1] J. A. Fredrick, P. C. Bluemenfeld, A. H. Paris, "School engagement: potential of the concept, state of the evidence," *Review of Educational Research,* Vol. 71, No. 1, pp. 59-109, 2004. doi: 10.3102/00346543074001059

[2] M.-T. Wang, J. Degol, "Staying engaged: knowledge and research needs in student engagement," *Child Development Perspectives,* Vol. 8, No. 3, pp. 137-143, 2014. doi: 10.1111/cdep.12073

[3] J. Reeve, "How students create motivationally supportive learning environments for themselves: the concept of agentic engagement," *Journal of Educational Psychology,* pp. Vol. 105, No. 3, 579–595, 2013. doi: 10.1016/j.cedpsych.2020.101899

[4] G. Natriello, "Problems in the evaluation of students and student disengagement from secondary schools," *Journal of Reseacrh and Development in Education,* pp. 17, 14-24, 1984.

[5] E. A. Skinner, M. J. Belmont, "Motivation in the classroom: Reciprocal effects of teacher behavior and," *Journal of Educational Psychology,* Vol. 85, No. 4, pp. 571-581, 1993.

[6] H. M. Marks, "Student engagement in instructional activity: patterns in elementary, middle, and high school years," *American Educational Research Journal,* Vol. 37, No. 1, pp. 153-184, 2000.

[7] J. Lee, H.-D. Song, A. J. Hong, "Exploring factors, and indicators for measuring students' sustainable engagement in e-learning," *Sustainability,* Vol. 11, No. 4, p. 985, 2019. doi: 10.3390/su11040985

[8] L. Subraimanan, M. A. Mahmoud, "A systematic review on students' engagement in classroom: indicators, challenges and computational techniques," *International Journal of Advanced Computer Science and Applications(IJACSA),* Vol. 11, No. 1, 2020. doi: 10.14569/IJACSA.2020.0110113

[9] N. V. Verdina, R. B. Pramono, "Eterlibatan siswa ditinjau dari jenis kelamin dan jenjang kelas pada siswa di SMK N 3 Jepara," *Indonesian Journal of Educational Counseling,* Vol. 9, No. 1, pp. 28-38, 2025. doi: 10.30653/001.202591.436

[10] M. J. Furlong, S. L. Christenson, "Engaging students at school and with learning: A relevant construct for ALL students," *Psychology in the Schools,* Vol. 45, No. 5, pp. 365-368, 2008. doi: 10.1002/pits.20302

[11] R. Amy L, Christenson, L. Sandra L., "Handbook of Research on Student Engagement Second Edition," springer international publishing, 2022. doi: 10.1007/978-3-031-07853-8

[12] M. K. J. and D. Langley, "The room itself is not enough: student engagement in active learning classrooms," *College Teaching,* Vol. 68, No. 3, pp. 150-160, 2020. doi: 10.1080/87567555.2020.1768357

[13] K. Schnitzler, D. Holzberger, T. Seidel, "All better than being disengaged: Student engagement patterns and their relations to academic self-concept and achievement," *European Journal of psychology of Education,* Vol. 36, pp. 627-652, 2021. doi: 10.1007/s10212-020-00500-6

[14] Hariyono, "Implementation of digital technology-based learning model to enhace student engagement and motivation in economics subject learning at high school," *Edutec Journal of Education and Technology,* Vol. 7 No. 2, 2023. doi: 10.29062/edu.v7i2.710

[15] C. L. Thomas and K. Allen, "Driving engagement: investigating the influence of emotional intelligence and academic buoyancy on student engagement," *Journal of Further and Higher Education,* 2021, DOI: 10.1080/0309877X.2020.1741520

[16] T. D. Nguyen, M. Cannata and J. Miller, "Understanding student behavioral enaggement: Importance of student interaction with peers and teachers," *The Journal of Educational Research,* 2016, DOI: 10.1080/00220671.2016.1220359.

[17] E. Oliver, A. J. S. Morin, J. Langlois, K., T. Grenier, I. Archambault, "Internalizing and externalizing behavior problems and student engagement in elementary and secondary school students," *Journal of youth and adolescence,* Vol. 49, No. 11, pp. 2327-2346, 2020. doi: 10.1007/s10964-020-01295-x

[18] Fredricks, Jennifer, Reschly, A. L. Christenson, Sandra, *"Handbook of Student Engagement Interventions: Working with Disengaged Students,"* Elseiver, 2019. doi: 10.1016/C2016-0-04519-9

[19] J. W. Santrock, *Remaja*, Jakarta: Penerbit Erlangga, 2007.

[20] O. Bakadorova., D. Raufelder, "The interplay of students' school engagement, school self-concept and motivational relations during adolescence," *Frontiers in Psychology,* Vol. 8, 2017. doi: 10.3389/fpsyg.2017.02171

[21] M. Verhoeven, "Understanding school engagement: The role of contextual continuities and discontinuities in adolescents' learner identities," *Learning Culture and Social Interaction,* Vol. 28, No. 1, 2021. doi: 10.1016/j.lcsi.2020.100460

[22] Direktorat Analisis dan Pengembangan Statistik, "Indikator Kesejahteraan Rakyat 2024," 2024.

[23] J. D. Potane, j. L. C. Sumodevilla and R. A. Banaag, "Factors affecting student drop-out behavior: A systematic review," *International Journal of Educational Management and Innovation,* Vol. 5, No. 1, pp. 53-70, 2024. doi: 10.12928/ijemi.v5i1.9396

[24] J. Maroco, H. Assunção, H. Harju-Luukkainen, S.-W. Lin, P.-S. Sit, P.-S. Cheung, B. Maloa, I. S. Ilic, T. J. Smith and J. A. D. B. Campos, "Predictors of academic efficacy and dropout intention in university students: Can engagement suppress burnout?," *PLOS ONE,* Vol. 15, No. 10, 2020. doi: 10.1371/journal.pone.0239816

[25] E. Degroote, j. Demanet and M. Van Houtte, "The influence of school mobility and dropout rates on non-mobile students' school engagement: a chicken-and-egg situation?," *Research Papers in Education,* Vol. 34, No. 4, pp. 443-466, 2020. doi: 10.1080/02671522.2019.1601755

[26] K. C. P. Bostwick, A. J. Martin, R. J. Collie, E. C. Burns and N. Hare, "Academic buoyancy in high school: a cross-lagged multilevel modeling approach exploring reciprocal effects with perceived school support, motivation, and engagement," *Journal of Educational Psychology,* Vol. 114, No. 8, pp. 1931–1949, 2022. doi: 10.1037/edu0000753.

[27] N. Suárez, B. Regueiro, I. Estévez, M. del Mar Ferradás, M. A. Guisande and S. Rodríguez, "Individual Precursors of Student Homework Behavioral Engagement: The Role of Intrinsic Motivation, Perceived Homework Utility and Homework Attitude," *Frontiers in Psychology,* Vol. 10, 2019. doi: 10.3389/fpsyg.2019.00941

[28] I. N. Susanti, Yuspendi, M. Y. Megarini, "The effect of autonomy training on student engagement," *Indigenous: Jurnal Ilmiah Psikologi,* Vol. 5, No. 2, pp. 151-163, 2020. doi: 10.23917/indigenous.v5i2.9149

[29] T. Havik and E. Westergård, "Do teachers matter? students' perceptions of classroom interactions and student engagement," *Scandinavian Journal of Educational Research , V*ol. 64, No. 4, pp. 488-507, 2020. doi: 10.1080/00313831.2019.1577754

[30] M. Sadoughi and S. Y. Hejazi, "Teacher support and academic engagement among EFL learners: The role of positive academic emotions," *Studies in Educational Evaluation,* Vol. 70, p. 101060, 2021. doi: 10.1016/j.stueduc.2021.101060

[31] N. Simić and M. Vukelić, "The transition to vocational secondary school in serbia: a two-wave moderated mediation study on school climate, teacher support, engagement and school adjustment," *SAGE Open,* Vol. 13, No. 1, 2023. doi: 10.1177/21582440231164899

[32] T. Zhang, J. Zhao and B. Shen, "The influence of perceived teacher and peer support on student engagement in physical education of Chinese middle school students: mediating role of academic self-efficacy and positive emotions," *Current Psychology,* Vol. 43, No. 12, pp. 10776–10785, 2024. doi: 10.1007/s12144-023-05200-0.

[33] E. Lombardi, D. Traficante, R. Bettoni, I. Offredi, M. Giorgetti and M. Vernice, "The impact of school climate on well-being experience and school engagement: A study with high-school students," *Frontiers in Psychology,* Vol. 10, 2019. doi: 10.3389/fpsyg.2019.02482

[34] L. A. Quines and M. C. D. Relacion, "The mediating effect of school climate on the relationship between teacher communication behavior and student engagement," *European Journal of Education Studies,* Vol. 9, No. 11, 2022. doi: 10.46827/ejes.v9i11.4521

[35] A. Zhou, X. Guan, M. Z. Ahmed, O. Ahmed, M. C. Jobe and F. A. Hiramoni, "An analysis of the influencing factors of study engagement and its enlightenment to education: role of perceptions of school climate and self-perception," *Sustainability,* Vol. 13, No. 10, 2021. doi: 10.3390/su13105475

[36] A. J. Martin and H. W. Marsh, "Academic Buoyancy: Towards an understanding of students' everyday academic resilience," *Journal of School Psychology,* pp. 53–83, Vol. 46, No. 3, 2008. doi: 10.1016/j.jsp.2007.01.002

[37] A. J. Martin and H. W. Marsh, "Academic resilience and its psychological and educational correlates: A construct validity approach," *Psychology in the School,* Vol. 43, No. 3, pp. 267-281, 2006. doi: 10.1002/pits.20149

[38] V. Brighita and M. Rohinsa, "Peran academic buoyancy terhadap engagement dalam aktivitas belajar jarak jauh di perguruan tinggi," *Humanitas,* Vol. 7, No. 1, pp. 1-10, 2023.

[39] Y. Jia and L. Cheng, "The role of academic buoyancy and social support on english as a foreign language learners' motivation in higher education," *Frontiers in Psychology,* Vol. 13, 2022. doi: 10.3389/fpsyg.2022.892603

[40] D. W. Putwain, J. J. in de Wal and T. van Alphen, "Academic buoyancy: Overcoming test anxiety and setbacks," *Journal of Intelligence,* Vol. 11, No. 3, p. 42, 2023. doi: 10.3390/jintelligence11030042

[41] R. Hiroven, D. W. Putwain, S. Maatta, T. Ahonen and N. Kiuru, "The role of academic buoyancy and emotions in students' learning-related expectations and behaviours in primary school," *British Journal of Educational Psychology,* Vol. 90, No. 4, pp. 948-963, 2019. doi: 10.1111/bjep.12336

[42] A. Derakhshan and H. Yin, "Do positive emotions prompt students to be more active? Unraveling the role of hope, pride, and enjoyment in predicting Chinese and Iranian EFL students' academic engagement," *Journal of Multilingual and Multicultural Development,* pp. 1-19, 2024. doi: 10.1080/01434632.2024.2329166

[43] X. Wang, W. M. W. Jaafar and R. M. Sulong, "Building better learners: exploring positive emotions and life satisfaction as keys to academic engagement," *Frontiers in Education,* Vol. 34, No. 1, pp. 107-138, 2022. doi: 10.3389/feduc.2025.1535996

[44] E. H. Erikson, *"Identity: Youth and Crisis,"* W. W Norton, 1968.

[45] J. J. Chen, "Relation of academic support from parents, teachers, and peers to Hong Kong adolescents' academic achievement: The mediating role of academic engagement.," *Genetic, Social, and General Psychology Monographs,* Vol. 131, No, 12, pp. 77-127. doi: 10.3200/MONO.131.2.77-127, 2005.

[46] D. Martinot, A. Sicard, B. Gul, S. Yokimova, A. T. Schmitt, C. Maintenant, "Peers and teachers as the best source of social support for school engagement for both advantaged and priority education area students," *Frontiers in Psychology,* p. 13:958286. doi: 10.3389/fpsyg.2022.958286, 2022.

[47] H. Qudsyi, S. K. Sa'diyah, R. Mahara, "*Family Functioning, Peer Support, and Student Engagement Among High School Student in Central Java Island Indonesia,"* in The Social Science Empowered, London, 2020.

[48] L. Luan, J.-C. Hong, M. Cao, Y. Dong and X. Hou, "Exploring the role of online EFL learners' perceived social support in their learning engagement: a v," *Interactive Learning Environments,* Vol. 31, No. 3, pp. 1703-1714, 2020. doi: 10.1080/10494820.2020.1855211

[49] P. a. Ursin, T. Järvinen, P. Pihlaja, "The role of academic buoyancy and social support in mediating associations between academic stress and school engagement in finnish primary school children," *Scandinavian Journal of Educational Research,* Vol. 65, No. 4, pp. 661-675, 2020. doi: 10.1080/00313831.2020.1739135,

[50] K. Zariayufa, S. Cahyadi, Witriani, "Peran dukungan orang tua, guru & teman sebaya terhadap keterlibatan siswa smk dalam pembelajaran daring," *Jurnal Education FKIP UNMA,* vol. 8, no. 3, pp. 973-980, 2022.

[51] X. Cupido, N. Frade, T. Govender, E. Samkange, S. Pather, "Student peer support initiative in higher education: A collection of South African case studies," Stellenbosch , African Sun Media, pp. 161-163, 2022.

[52] L. Yang, "Enhancing emotional health and engagement in Chinese English language learners: an approach from teachers' autonomy- supportive behavior, teachers' harmony, and peer support in a two-sample study," *Frontiers in Psychology,* Vol. 15, 2024. doi: 10.3389/fpsyg.2024.1356213

[53] J. D. Finn, K. S. Zimmer, "Student engagement: What is it? why does it matter?," in *Handbook of Research on Student Engagement*, Springer US, pp. 97-131. doi: 10.1007/978-1-4614-2018-7_5

[54] J. W. Creswell, "*Educational Research: Planing, COnducting, and Evaluating Quantitative and Qualitative Research*," Boston: Pearson Education, 2012.

[55] V. Brighita and M. Rohinsa, "Peran academic buoyancy terhadap engagement dalam aktivitas belajar jarak jauh di perguruan tinggi," *Humanitas,* Vol. 7, No.1, pp. 1-10, 2023.

[56] A. Yosi, J. Savitri and M. Rohinsa, "Academic buoyancy training to improve school engagement for high school students in Cimahi," *Jurnal Psikologi Terapan dan Pendidikan,* Vol. 6, No. 2, pp. 150-160, 2024. doi: 10.26555/jptp.v6i2.29832

[57] D. W. Putwain, J. J. i. d. Wal and T. v. Alphen, "Academic buoyancy: Overcoming test anxiety and setback," *Journal of Intelligence,* Vol. 11, No. 3, pp. 42. 2023. doi: 10.3390/jintelligence11030042,

[58] M. Rohinsa, *"Daya Apung Akademik,"* Sleman: Zahir Publishing, 2024.

[59] K. N. Fathiyah, "Academic stress and its sources among junior high school students," in *Proceedings of the International Seminar on Innovative and Creative Guidance and Counseling Service (ICGCS 2021)*, 2022. doi: 10.2991/assehr.k.220405.023

[60] S. Yun, P. Hiver and A. H. Al-Hoorie, "Academic buoyancy: Exploring learners' everyday resilience in the language classsroom," *Studies in Second Language Acquisition,* Vol. 40, No. 4, 2018. doi: 10.1017/S0272263118000037

[61] T. D. Biantoro and J. Savitri, "Pengaruh academic peer support terhadap school engagement pada siswa SMP "X" di Bandung," *Provitae Jurnal Psikologi Pendidikan,* Vol. 16, No. 2, pp. 63-72, 2023. doi: 10.24912/provitae.v16i2.26704

[62] J. Deen Careemdeen, "Peer support for learning among senior secondary school children in Sri Lanka: Gender as factor," *International Journal of Multidiciplinary Research and Growth Evaluation,* Vol. 4, No. 3, pp. 345-348, 2023. doi: 10.54660/.IJMRGE.2023.4.3.345-348

[63] L. Liu, "Is peer influence gender and age specific? findings from a sample of justice-involved individuals," *International Journal of Offender Therapy and Comparative Criminology,* Vol. 67, No. 13-14, pp. 1425-1446, 2023. doi: 10.1177/0306624X231172647